

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022060**Date Inspected:** 19-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lv Li Qing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr.Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

**ULTRASONIC TESTING****OBG SEGMENT 14 EAST**

ABF Request No: 03192011-1

This QA Inspector performed verification Ultrasonic Testing (UT) in accordance with ABF/CT Pattern "D" UT Procedure 001 Revision 1. All recordable Indications if found were recorded on a separate data sheet that Caltrans QA generates after performing a joint inspection with ABF ultrasonic testing personnel. The location of the inspection was identified as the weld between side panel and edge panel of OBG segment 14east cross beam side. The weld designations were as follows:

SEG3019AG-007 (OBG 14EAST, S.P to EP CB side)

SEG3019AG-004 (OBG 14EAST, S.P to EP CB side)

OBG 14EAST

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## WELDING INSPECTION REPORT

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This Quality Assurance (QA) Inspector observed installation/ Erection of Anchorage plates AP3008, AP3009, AP3010 and AP3011 was in process in OBG lift 14 east.

During the random visual inspection this Quality Assurance (QA) Inspector observed linear indications in FB3271 at the HAZ area of the weld joint between FB3271 and EP3027D.

Length of indication measured approximately 40mm and 10mm, regarding this issue this QA Inspector informed ZPMC CWI, ABF QA and lead QA (CT) as per ZPMC CWI they will issued the CWR for this. See attached photo for additional information.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070007 performing the Shielded Metal Arc Welding process on weld 146 located at PCMK SEG3019T. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u5b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067571 performing the Shielded Metal Arc Welding process on weld 070 located at PCMK SEG3019Z. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-B-u2-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066439 performing the Flux Cored Arc Welding process on weld 093 located at PCMK SEG3019H. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066763 performing the Flux Cored Arc Welding process on weld 154 located at PCMK SEG3019AW. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2132-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 044790 performing the Flux Cored Arc Welding process on weld 246 located at PCMK SEG3019BB. ZPMC QC Mr. Zhu Yuan Yuan was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2133-ESAB.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# WELDING INSPECTION REPORT

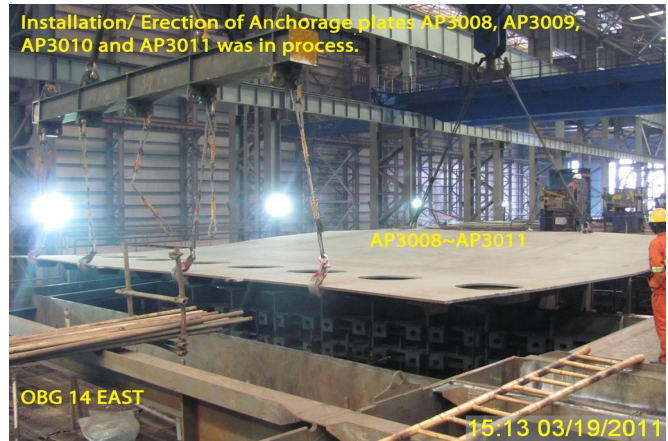
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Linear Indication (crack) observed in FB3271 at HAZ area of the weld joint between EP3027D and FB3271.



Installation/ Erection of Anchorage plates AP3008, AP3009, AP3010 and AP3011 was in process.



Linear Indication (crack) observed in FB 3271 at HAZ area of the weld joint FB3271 and EP3027D.



## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer

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